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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,900	03/12/2001	Kazuhiro Kosuge		6617

30132 7590 03/31/2004
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3137 MOUNT VERNON AVENUE
ALEXANDRIA, VA 22305

EXAMINER

OMGBA, ESSAMA

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/802,900

KOSUGE ET AL.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-15 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 is/are allowed.
- 6) ☒ Claim(s) 1, 7-9 and 17 is/are rejected.
- 7) ☒ Claim(s) 2-5, 10-12 and 18-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-5, 7-12, and 17-25 are objected to because of the following informalities: in claims 1, 2, 3, 11, 19-21 and 25, the phrase "advancing and retreating linearly and radially" should read --advancing and retreating radially in a linear line--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (US Patent 4,550,922) in view of Buck (US Patent 3,244,430).

For claim 1, Hall et al. discloses a work chucking apparatus for chucking a work, the apparatus comprising three chuck fingers 60 arranged in circumferentially spaced positions around a central axis and slidably mounted for advancing and retreating radially in a linear line relative to the central axis, inner surfaces of the chuck fingers serving as chuck surfaces, and drive means for advancing and retracting the chuck fingers radially in a linear line relative to the central axis, see column 3, line 48-68. Hall et al. does not disclose the outer surfaces of the chuck fingers being tapered at least at tip end portions thereof. However it is known to taper outer surfaces of chuck fingers as

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attested by Buck, see column 4, lines 14-16. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have tapered to outer surfaces of the chuck fingers of Hall et al., in light of the teachings of Buck, in order to reduce the weight of the fingers. Applicant should note that the work chucking apparatus of Hall et al./Buck is capable of inserting works in insertion holes.

For claim 7, Applicant should note that gravity pull is equivalent to Applicant's means for pushing.

For claim 8, see column 3, lines 56-59 of Hall et al. Applicant should note that it is within the general knowledge of one of ordinary skill in the art to properly shape the chucking fingers depending on the nature of the work being performed.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al./Buck as applied to claim 1 above, and further in view of Yokomachi et al. (US Patent 6,293,763).

Hall et al./Buck discloses a work chucking/insertion apparatus as shown above except for the inlet of the insertion hole being chamfered. However it is known to provide insertion holes such as found in engine cylinders with chamfered edge portions as attested by Yokomachi et al., see column 4, lines 46-48. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the insertion hole of Hall et al./Buck with a chamfered edge, in light of the teachings of Yokomachi et al., in order to facilitate the insertion of the piston in the cylinder hole. Applicant should note that it is within the general knowledge of one of

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ordinary skill in the art to match the chamfers on the fingers of the chucking/insertion apparatus with the chamfer of the insertion hole.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al./Buck as applied to claim 1 above, and further in view of Antoni (US Patent 5,842,703).

Hall et al./Buck discloses a work chucking apparatus as shown above except for the drive means being a motor. However Antoni teaches a force-activated drive member for driving clamping jaws, see column 1, lines 53-57. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a force-activated drive member as the means for moving the chuck fingers of Hall et al./Buck, in light of the teachings of Antoni, in order to easily move the fingers and provide adequate clamping forces. Applicant should note that it is within the general knowledge of one of ordinary skill in the art to provide appropriate force-activated drive members for the chucking fingers.

Allowable Subject Matter

6. Claims 2-5, 10-12 and 19-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 13-15 are allowed.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 7, 8 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eo
March 21, 2004

A handwritten signature in black ink, appearing to read 'Essama Omgba', is written in a cursive style.